

### ABSTRACT

Methods and apparatus are disclosed for fabricating thick and thin gate oxide transistors in a semiconductor device, wherein lightly doped source/drain regions for the thick gate oxide transistors are formed using a threshold voltage adjust implant, and lightly doped source/drain regions for the thin gate oxide transistors are formed using an LDD implant. The use of threshold voltage implantation to form the lightly doped source/drain regions for the thick gate oxide transistors allows lower dopant concentrations therein compared with the thin gate oxide transistors without the need for separate LDD implantation processing for transistors of different gate oxide thicknesses.